CLAIMS

1. - Program Clock Reference correction method in a transmission over a downlink in an integrated multispot satellite communication system (S) in which said downlink is transmitted in burst mode and comprises a plurality of multiplexed, modulated and compressed packets, corresponding to at least one user (a1, a2, b1, c1, c2, c3 and c4), **characterised** in that said Program Clock Reference correction is calculated in terms of a distance (d) defined between a real position of a packet (a12) and an estimated position of said packet, the estimated position being that which said packet (a12) would occupy if the downlink had not been compressed in a modulation and compression stage.

2. - Method of claim 1 in which said correction is defined by means of the following formula:

$$C_{PCR} = t_{dpack} \cdot d$$

where:

"C_{PCR}" is the correction factor;

"d" is the distance between the real position and the estimated position of the packet; and

"t_{dpack}" is the duration in time of a packet in the downlink frame.

3. - Method according to any of the previous claims in which said distance (d) is defined by means of the following formula:

$$d = n_d - \frac{n_{dt}}{n_{ut}} \cdot n_u$$

where:

n_d is the number of the downlink position of the packet in process;

n_{dt} is the total number of packets in the downlink frame;

n_{ut} is the total number of packets per frame and user; and

n_u is the number of the uplink position of the packet in process.

and where both n_d and n_u start counting from zero.

4. - Method according to any of the previous claims in which said transmission is carried out in MPEG2 transport streams in TDMA format.

5. - Integrated multispot satellite communication system (S) for carrying out the method of claim 1.